

ENGINEERING DIRECTIVES AND STANDARDS

Volume : IV

Revision Date : 09/14/2009

Chapter : 7

Subject : **TRAFFIC SIGNAL AND FLASHING BEACON INSTALLATION AND
MAINTENANCE**

Section : 1

Directive : 5

1. PURPOSE:

To establish uniform policies and procedures for installation and maintenance of traffic signals and flashing beacons.

2. SCOPE:

This directive is applicable to all installation and maintenance of flashing beacons and traffic signals on State highways.

3. POLICY:

The following policy will apply to traffic signals and flashing beacons installed by Traffic Operations or by contract and to maintenance performed by district personnel or municipalities.

A. Signal Installations:

New signal installations shall be performed by, or under the direction of, Traffic Operations as requested from the District Traffic Operations Engineer and/or Traffic Engineering Management. Installations will be made as soon as possible after being authorized, but emergency installations or replacement of signals damaged by collision shall have preference when scheduling installation of signals.

Request for emergency reinstallation of signals shall be accomplished as soon as possible with overtime authorized for such work. However, reinstallation of flashing beacons shall be accomplished with a minimum of overtime. Supervisory personnel shall use their judgment when repair work is requested since certain conditions may prevail which might make any delay in repair work intolerable. This could include National holidays, long weekends, athletic events, and local celebrations which make it mandatory that a signal be repaired without delay.

When work of any nature is performed on a signal installation by the District, a signal work order shall be completed. The white copy of this order is to be transmitted to the Traffic Operations Section and the blue copy or a Xerox copy is to be retained by the District. These forms are pre-numbered and shall be obtained from the Traffic Operations Section.

All installations should be uniform in appearance on a statewide basis in order to avoid confusion for the traveling public and to simplify the stocking of parts and training of personnel making installations. Traffic Operations personnel will establish standards in accordance with Department policies and procedures for use in all signal installations. Installations will be made with commercially available parts and components in order that these may be easily purchased and not have to be individually fabricated by Department personnel.

Traffic signals shall be installed with mast arms within Districts 02, 03, 07, 61, 62, and within Avoyelles, Rapides, and Vernon Parishes in order to minimize damage caused by hurricanes. Exceptions to this requirement may be granted by the Traffic Engineering Management Administrator (Section 77) or the State Traffic Signal Operations Engineer (Section 45). Traffic signals may be installed with mast arms or steel strain poles throughout the remainder of the State. Wood pole installation for traffic signals should primarily be reserved for emergency reinstallations. Flashing beacons, except in rare instances, will be erected using diagonal spans on wood poles. Poles should be located as far away from the travel-way as possible, but all poles, down guys, controllers, and underground conduit must be kept within the right-of-way.

Signs and signal heads shall be suspended from the same span wire. Signs and signal heads should be installed at approximately the same height on mast arms. Box spans are the preferred layout for signals on span wire. Backplates with a 3" reflective strip shall be installed on all signal heads for mast arm installations. Backplates with a 3" reflective strip may be installed on tethered span wire installations for all approaches with 45 mph or greater posted speed. A minimum of two signal faces shall be provided for the major movement on the approach, even if the major movement is a turning movement. For multilane roadways, a signal head shall be installed over each lane (see DOTD Traffic Signal Design Manual, latest edition). All signal heads shall be 12" LEDs.

Signal heads and mounting hardware must interlock through the use of serration or similar means of positive locking device. Signal heads above the roadway shall be installed with a minimum clearance of 16 feet but not over 18 feet above the surface. Beacon heads above the roadway shall be installed with a minimum clearance of 16 feet but shall not be over 19 feet and should preferably be installed 18 feet above the surface.

B. Signal Maintenance:

The Department has entered into contracts for signal maintenance with certain municipalities. Their responsibilities are detailed in EDSM No. IV.1.1.7. Department forces will not undertake the performance of any work which is the responsibility of a municipality, except in emergencies and at the request of a responsible city official. All such work will be done on a reimbursable basis. The District will be responsible for monitoring the work and ensuring that the Department does not pay a bill or perform work that is the responsibility of a municipality. The District will also review the annual contracts to ensure the accurate listing of signals to be maintained.

4. OTHER ISSUANCES AFFECTED:

All directives, memorandum, or instructions issued heretofore in conflict with this directive are hereby superseded.

5. EFFECTIVE DATE:

This directive is effective immediately upon receipt.

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